

1/15

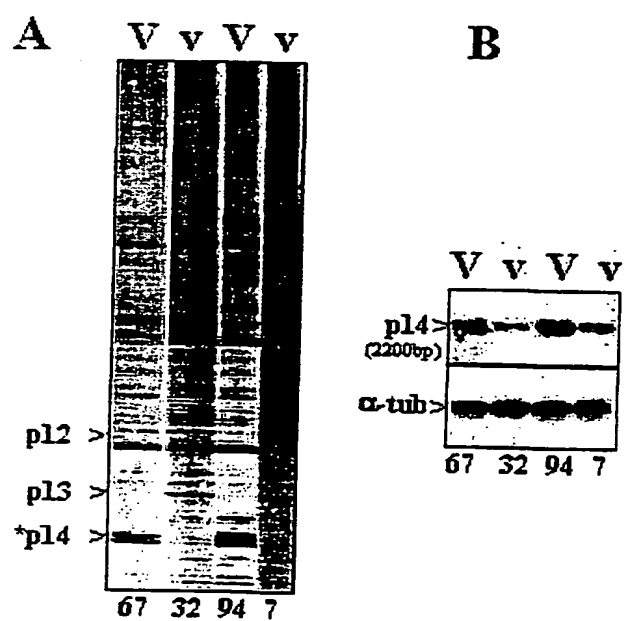


Figure 1

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L L F C V A S A E V Q V A T K D N F	30
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D K V V I G D L T L V K F Y A P <u>W</u> C	48
GGC CAC TGC AAG ACA CTC GCC CCG GAG TTT GTA AAG GCC GCT GAC ATG CTG GCC	438
<u>G H C K</u> T L A P E F V K A A D M L A	66
GGC ATC GCG ACC CTT GCA GAG GTC GAT TGC ACC AAA GAA GAG AGC CTT GCT GAG	492
G I A T L A E V D C T K E E S L A E	84
AAG TAC GAA ATC AAG GGG TTC CCC ACG CTG TAC ATC TTC CGT AAC GGT GAG AAA	546
K Y E I K G F P T L Y I F R N G E K	102
GTG AAG ATC TAC GAT GGT CCC CGC ACT GCC GCC GGC ATC GCG TCG TAC ATG AAG	600
V K I Y D G P R T A A G I A S Y M K	120
GCG CAT GTC GGT CCA TCG ATG AAG GCC ATC TCA ACG GCT GAA GAG CTG GAG GAG	654
A H V G P S M K A I S T A E E L E E	138
CTC AAG AAG GAG ACT TTC CCG GTG TGC GTG GTG AAG ACA GCG AGC ACC GAC TCG	708
L K K E T F P V C V V K T A S T D S	156
GAG ATG GCG TCG ATG ATA ACC AAG GTG GCG GAC TCT CTC CGC TCG CAG ATG AAC	762
E M A S M I T K V A D S L R S Q M N	174
TTT GTG CTC GTG ACG GAT GCG GCC ATC TCT CCG AAT GAT GCC ATG GAG TCG GTT	816
F V L V T D A A I S P N D A M E S V	192
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T V Y R K N A E R E A Y T G A T P M	210
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T A E S V K S F L T S A V L D Y F G	228
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L G W V F I D K N T D S A L K G S L	264
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V A V A E K Y R S Q V L L T Y I D G	282
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CCG GCG TTT GTG GTC GAT TTC GAG CGC CGC CAT CAC GTG ATG GGG ACG GAC ACC	1194
P A F V V D F E R H H V M G T D T	318
CCA GTC ACC TCC GAG TCT GTC GCT GCG TTT GTG GAG AAG TAT GTC AAG GGC GAG	1248
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L T T V V G Q T F A K Y T D G T Q N	372
GTG ATG CTG CTC TTC TAC GCG CCG TGG TGC <u>GGA CAC TGC AAG</u> AAG CTG CAC CCC	1410
V M L L F Y A P <u>W C G H C K</u> K L H P	390
GTC TAC GAT AAA GTA GCC AAG AGC TTC GAG TCT GAG AAT GTG ATC ATT GCG AAG	1464
V Y D K V A K S F E T E N V I I A K	408
ATG GAT GCC ACG ACG AAC GAC TTT GAC CGC GAG AAG TTT GAG GTG TCT GGA TTT	1518
M D A T T N D F D R E K F E V S G F	426
CCA ACG ATT TAC TTC ATC CCA GCC GGC AAG CCG CCA ATC GTG TAC GAG GGT GGC	1572
P T I Y F I P A G K P P I V Y E G G	444
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### Figure 2

Figure 3 A

*L. major* 1 -----MORSEFLVFLCALIFCVESAIVQ-----VAIKONFD  
*T. brucei* 1 -----MRATIEVALAHATMRESTAESLK-----ITKEN-SN  
*H. jecorina* 1 -----MOQRRLTAALVAALAAVVSASST-----VKSITKOTFN  
*C. elegans* 1 -----MIVVOAALVASFLAPASAGGA-----VLEYDGNFD  
*C. reinhard* 1 MNRWNLLALTLGLLVAAPSTKHQFAHASDEYEDDEEDDAPAAPKDDDDVDVTVTVKNND  
*D. melano* 1 -----MKFLLICALFLAASYVAASAEAEVKVEE-----GVLVATVDNFK  
*C. parvum* 1 -----MIGIRSLVSAALGFSCLSKVVLGDEAHFIS-----EHITSLTSSNFE  
*H. sapiens* 1 -----MIRRALLECLAVAALVRADAPBED-----HVLVLRKSNFA

*L. major* 32 KVVIG-DITLVKFYAPWCGHCKTLAPEYVKAADMAGIAT---LAEVDCITKEESLAEKYE  
*T. brucei* 31 ETIAKSEIFLVKFYVDTTCGYQOMLAPENBEKAANETIDNALMG---EVDCHSOPELAANTS  
*H. jecorina* 34 DFINNSNDLILAESEAPWCGHCKALAPEYEEAATTLLKDKS---IKLAKVDCVBEADLCKEHG  
*C. elegans* 32 DLIQTHDIALVKFYAPWCGHCKTLAPEYERAPKASNDPPVALVKVDCITTEKTVCDEKG  
*C. reinhard* 61 ETIVKKSKEFALVEFYAPWCGHCKTLAPEYAKAATAALKAAAPDALPAKVDATEQESLAEQY  
*D. melano* 39 QLIADNEFVLVEFYAPWCGHCKALAPEYAKAAQOLAEKESPIKLAKVDATVEGELAEQYA  
*C. parvum* 45 DFIKSKEHVIVTFEAPWCGHCKALAPEYAKAAGKLAECSEIRLAKVDATVEESLAEQY  
*H. sapiens* 36 BALAAHKYMLVEFYAPWCGHCKALAPEYAKAAGKLAECSEIRLAKVDATVEESLAEQY

*L. major* 88 LKGEPTLYIFRNCE--KVKIYDGPRTAAGIASYMAHVGPMSKALSTAEELBELKKESTFP  
*T. brucei* 88 LRGYPTEILFRNGK--EAEHYGGARTKDDITIKYTKANVGPAVTPASNAEEVTRAKEBHDV  
*H. jecorina* 92 VEGYPTLKVFRGLD--KVAPVIGPRKADGITSYVVKOS-LPAVVSALTQDTEOFKTADKV  
*C. elegans* 92 VNGEPTLKIFRNCG--VPAQYDGPRTADGIVKFMGQSGHSSKELKTVAEFKFTGGDEN  
*C. reinhard* 121 VQGYPTLKWVFDG--ELASDYNGPRTADGIVGWKKEGTGPPAVTVEDADKLKSEADAEV  
*D. melano* 99 VEGYPTLKFRRSG--SPVEVSGGROAADITATVTKETGPPAKDLTSVADAEOLKDNEL  
*C. parvum* 105 VSGYPTLKFRRSGID--SVQNVSGARSKDAFIKVIKHLTGPAVQVAESEBALKTFASSSS  
*H. sapiens* 96 VRGYPTLKFRRNGDTASPKBYTAGREADDIVNWLKRTGPAATTLPDCAAAESSIVESSEV

*L. major* 146 VCVKTASTDSEMASMITKVASDLSRSONFVLVTDAAISPNDAMESVT-----VYRKNAE  
*T. brucei* 146 VCVGLTANNSTSLSTLAEAAQSERVSLKFFAEAPKLPFDEKPETIVVYR-----KG  
*H. jecorina* 149 VEIVYIAADDKASNETITALENELRDTYLFGGVNDAAVAEAEAGVKFP---S-VVLMKSF  
*C. elegans* 150 VVIGEESESKLKDSYLKVADTERDRFSFAHTSNKDIKKAGYSDDVVVFVPKKHNFED  
*C. reinhard* 179 VAVGFFKALEGEIYDTEKSYAATDEDVVFVQTSADYAKAAGLDAVDTVSV-VKNFAGED  
*D. melano* 156 ALLEGFFKDLSEPAKTFETKANALDSFVFSVSSNADVIKYEAKDNG-----VWLEKPED  
*C. parvum* 163 AVVGRFTSKDSAEYAVFEKVASGHEHNYAFIAFFOEGEQKLEVLHK-----D  
*H. sapiens* 156 AVIGEEKDVESDSAKQELQAAEAIDDIPTGITSNSDVFSKYQLDKDG-----VWLEKPED

*L. major* 201 REAYTGATPMTASVRSFELTSAVLDFYGEELGOESFOKMEANKDPLGWVFTDKN--TDS  
*T. brucei* 198 GEREVYDGPMEVEKITEFLOISRVAFGGEITPENNYQYYSVIKRP--VGWAMVKPNETASI  
*H. jecorina* 205 EGKNVESEKFDABATNEAQAATPLVGEVGPETIYAGYMSAGIPLAYIFAETAEE---RE  
*C. elegans* 210 TNEFKYICNYDITDKIKNELVHETVGFAGIRTOGNLFQEQKPIVIVYINVVDYVDPKGSN  
*C. reinhard* 238 RATAVLATDIDTDSLTAIVKSEKMEPTIEFNQKNSDKIFNSQINKQLHLWTADDLKADA  
*D. melano* 211 DKKSVEFEGELNEENLKKFAQVOSTPLIVDENHESASKIFG-CSIKSHLLFFVSRGGHIE  
*C. parvum* 211 EEPVSLPMPKTVEELEAKTILMNVDLFSATSAENYSLVMS--RE--GYTPGSVVLTRTSP  
*H. sapiens* 211 EGRNNEFEGEYTKENLLDETAKHNOPLVIEFTEOTAPRIFG-GEIKTHILLFLPKSVSDYD

*L. major* 259 ALKGSILVAVAEKYRSQVLLTYIDGDMR--PVSROLGTPEDAKFPFVVDFFRRE-IVMG  
*T. brucei* 256 ELKESLVEVKKMRSEHVVVWVWISKHP---VWRDEGVPEDAKYPAFLAIHWGAN-YLIS  
*H. jecorina* 262 NLAKHLKPVAEKYKGINFADIDAKNFG--SHAGNINLKTDFPAFAIHDLSKNLKFPFD  
*C. elegans* 270 YWRNRVYLKVAQNYKRAVQFAVSNKEEESSEIEINGLCERKDSDKPIVAITLTNEG---YP  
*C. reinhard* 298 EIMTVFREASKKEKGOLFVTVNNEGDGADPVVNFGLKGATSPVLLGFFMSEKNK-KFRM  
*D. melano* 270 KYVOPKBEIAKKYRDDILHVTLSSEEDHTRIFEFGMNEEVEPTIRLIKESDMARYKP  
*C. parvum* 267 SMLOHLEERLQITEKSMPLFSDTQEG-SHATQHLLNEKFPGLVIOQSVNVPSE-VMYG  
*H. sapiens* 270 GKLSNFRATAESFKGKILHETFIDSDHTDNQRILEFGGLKKECPAVRLITLSEEMTRYKP

Figure 3 B

*L. major* 316 TDTPTSTESVAAFVEKYVKGETKOTVMSDAIPAKETVNGLTITVVGOTFAKYTDG-TQNVN  
*T. brucei* 312 TAEVVTRESLEKFIIEFAAGRVEPTTKSLPYPEVETVDGKITIVAKTMOKHLTS-GKDH  
*H. jecorina* 320 QSKETITEKDTAAAFVDGFSSEKTEASTIKSEPIPETQ-EGPVTVAVAHSYKQIVLDDKKDVL  
*C. elegans* 327 MDQBFSDVNLQQFVDEVLGNAEPYMKSEPIPEEQ--GDVKVAVGKNEKELIMDADKQVL  
*C. reinhard* 357 EG-EFTADNVAKFAESVVDGTAQAVLKSEAIPEDPYEDGVYKIVGKTVESVVLDETQDVL  
*D. melano* 330 ESDDLSEATHEASTKKFLDGKIKOHLISQELPEDWDKNPVKIVSSNFESVALDKSKSVL  
*C. parvum* 325 PAKFDSVEPLKEFMKQVSEKHELSIKSEPIPAEQ-SCPVTVMVCKTFEEIVFRSDKQVL  
*H. sapiens* 330 ESEBITAERTITEFCHRFLEGGKIKPHLMSQELPEDWDKQPVKVLVGNNEEDVAFDEKENVF

*L. major* 375 ILEFYAPWCGHCKKLEPHYDKVAKSES---ENVIIAKMDATINDFDREKFEVSGFPTIY  
*T. brucei* 371 ILFEAPWCGHCKNFAPTEDEKFAKEDAT---DLIVAEIDATANYVNSSTETVTAFTPTMF  
*H. jecorina* 379 IEFYAPWCGHCKALAPKYDELAELVAKSDFKDKVIAKYDATANDVP---DEIQGFPTIK  
*C. elegans* 385 IEFYAPWCGHCKSLAPKYDELAELKLNK---EDVIIAKMDATANDVPPM-FEVRGFPTILF  
*C. reinhard* 416 IEFYAPWCGHCKKLEPIYKLLAKREKK---VDSVIIAKMDSTENEHPE--IEVKGFPITIL  
*D. melano* 390 IEFYAPWCGHCKCLAPIYDOLAEKYKD---NEQVIIAKMDSTANELES--IKISSEPTIK  
*C. parvum* 384 IEFYAPWCGHCKNLEPIYNOLGEEYKD---NDKVIKAKINGPONDTPYEGSPRAFPTIL  
*H. sapiens* 390 IEFYAPWCGHCKCLAPIYDKILGETYKD---HENVIIAKMDSTANEVEA--VKVISEPTILK

*L. major* 431 FIPA--GKPPPIVYEG-CRTADEIQVFVKSHLT-----ASAAPSGGPGSGNS  
*T. brucei* 427 FVEN--GGKPVVTEG-ERSFENVYEFVRKEVITTFKVSEKPANVTEBKKSEFENKSSKSNE  
*H. jecorina* 436 LYPAGDKKNPVTYSG-ARTVEDFIEFIKENCKYKAGVEIPAEPTTEASASESKASEEAKA  
*C. elegans* 440 WLBKNAKSNPIPMNG-GREVKDFVSEFISKES-----T---DGLKGFSRDGKKK  
*C. reinhard* 471 FYPAGSDRTPIVEEGGIRSLKSLTKFKITNAKIPYELP---KKGSDGDEGTSDDKOKPAS  
*D. melano* 445 YFRK-EDNKVIDENL-DRTLDDFVKFEDANG-----EVADSEPVETEEEEBEAP  
*C. parvum* 441 EVKA-GTRTPIPYDG-KRTVEAFKEFISES-----SFQDE-KE  
*H. sapiens* 445 FFPASADRTVIDYNG-ERTLDGFKKFEESGGQDGAGDDDDLEDLEBSEPDMEEDDDOKA

*L. major* 473 -----EEDL  
*T. brucei* 484 SNDSNESNVDRQDL  
*H. jecorina* 495 SEET-----EDEL  
*C. elegans* 484 K-----KTEL  
*C. reinhard* 528 D-----KDEL  
*D. melano* 492 K-----KDEL  
*C. parvum* 477 S-----KDEL  
*H. sapiens* 504 V-----KDEL

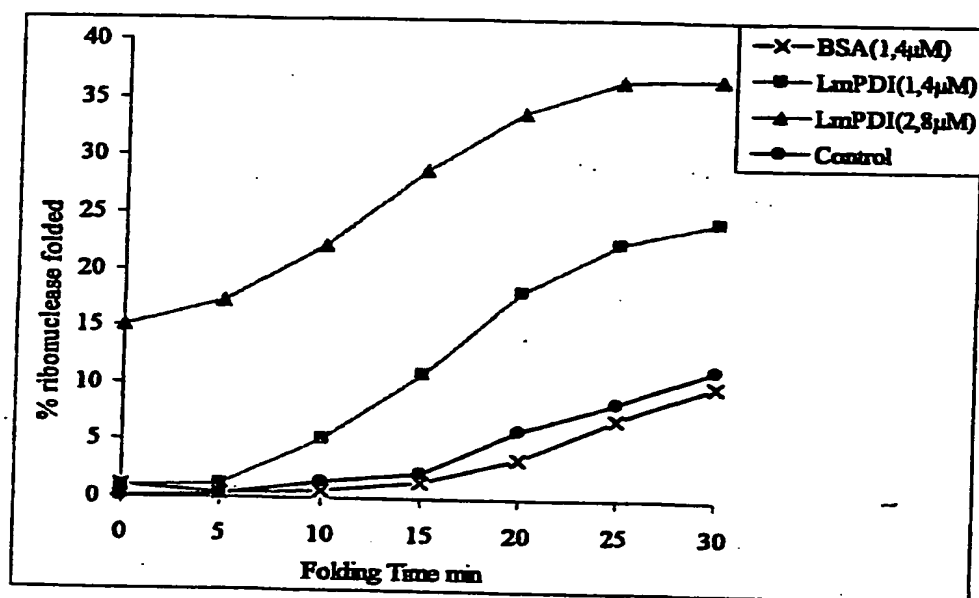


FIGURE 4

6/15

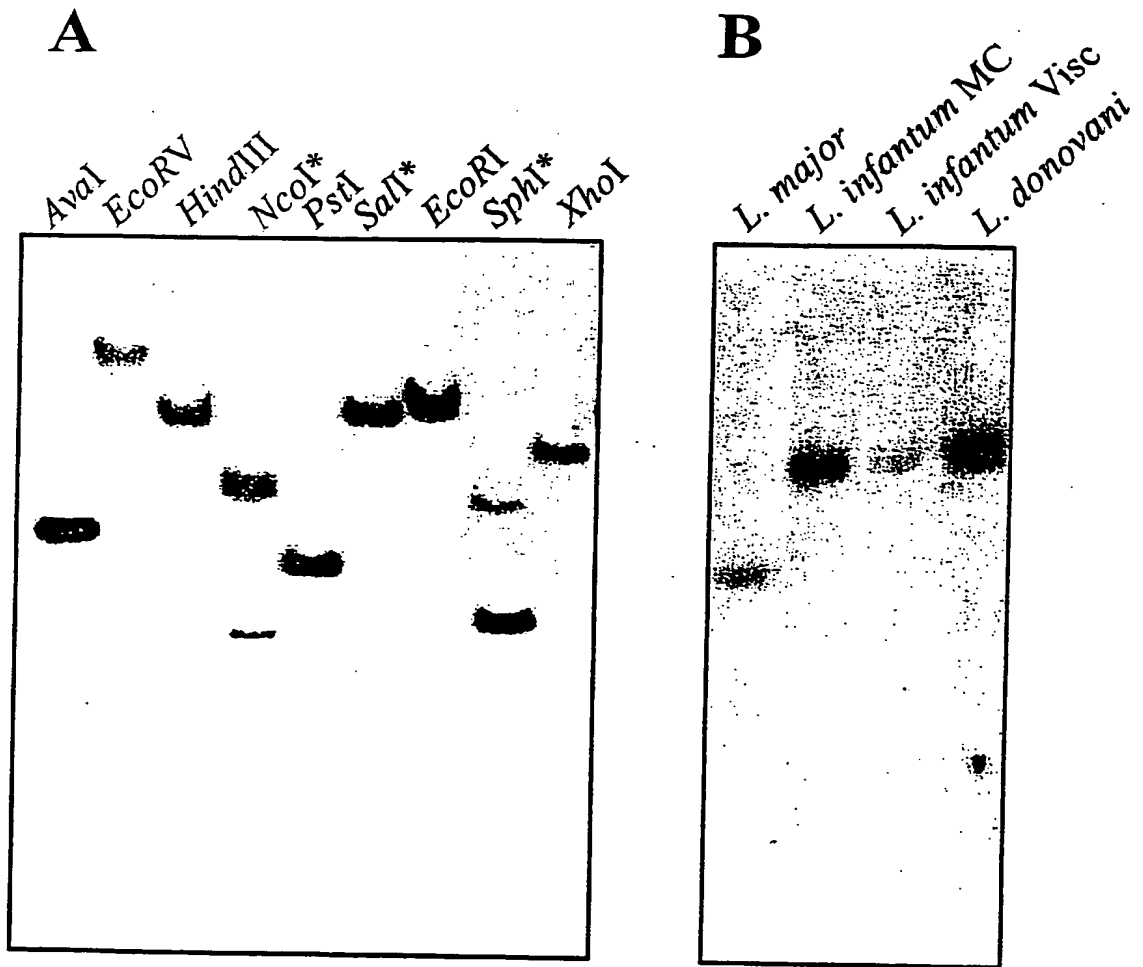


Figure 5

7/15

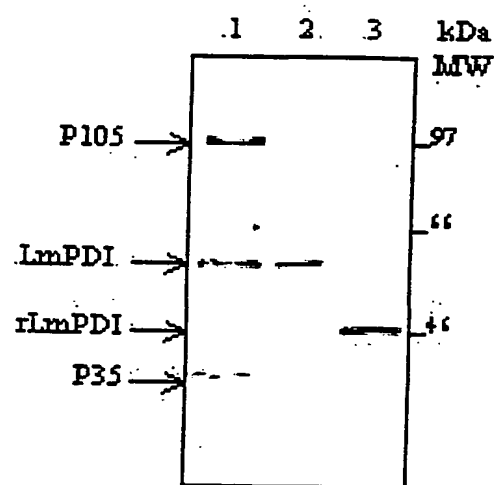


Figure 6

8/15

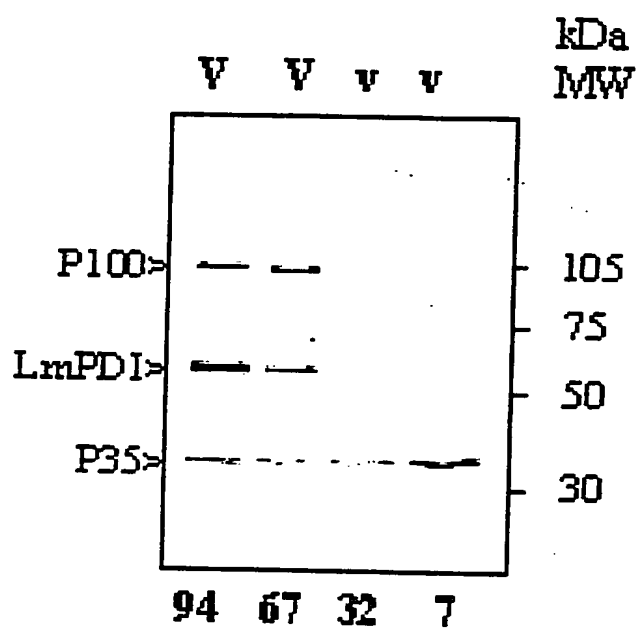


Figure 7



9 / 15

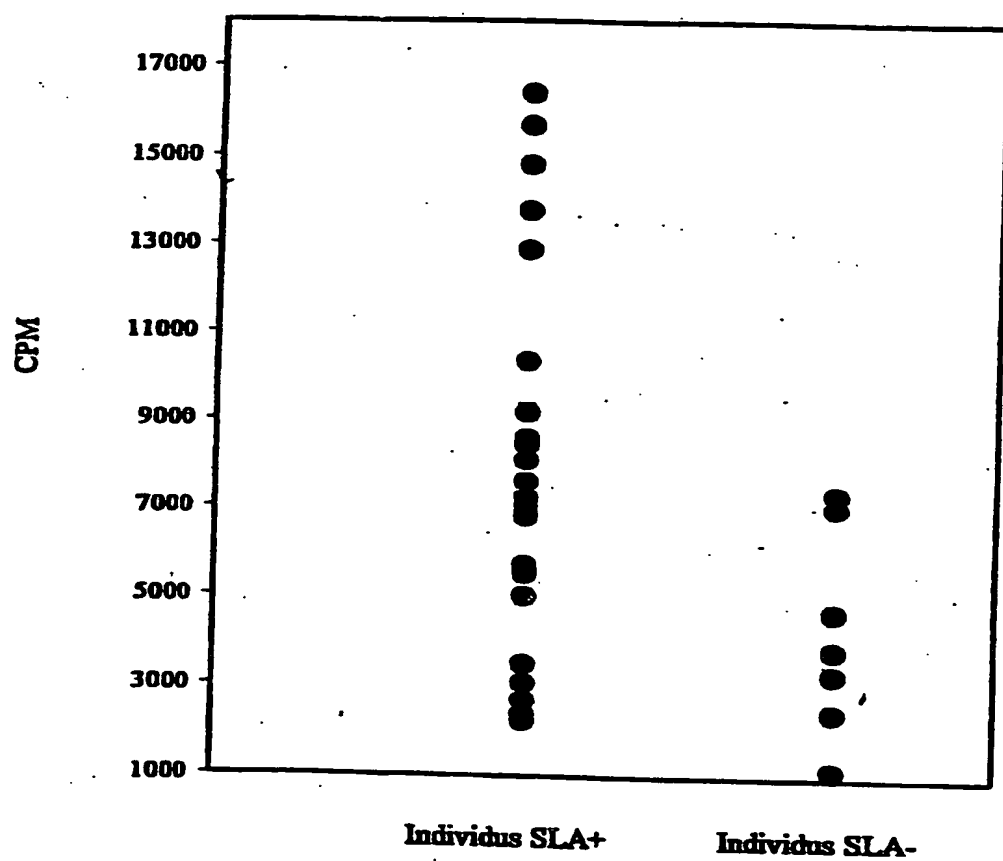


FIGURE 8

10 / 15

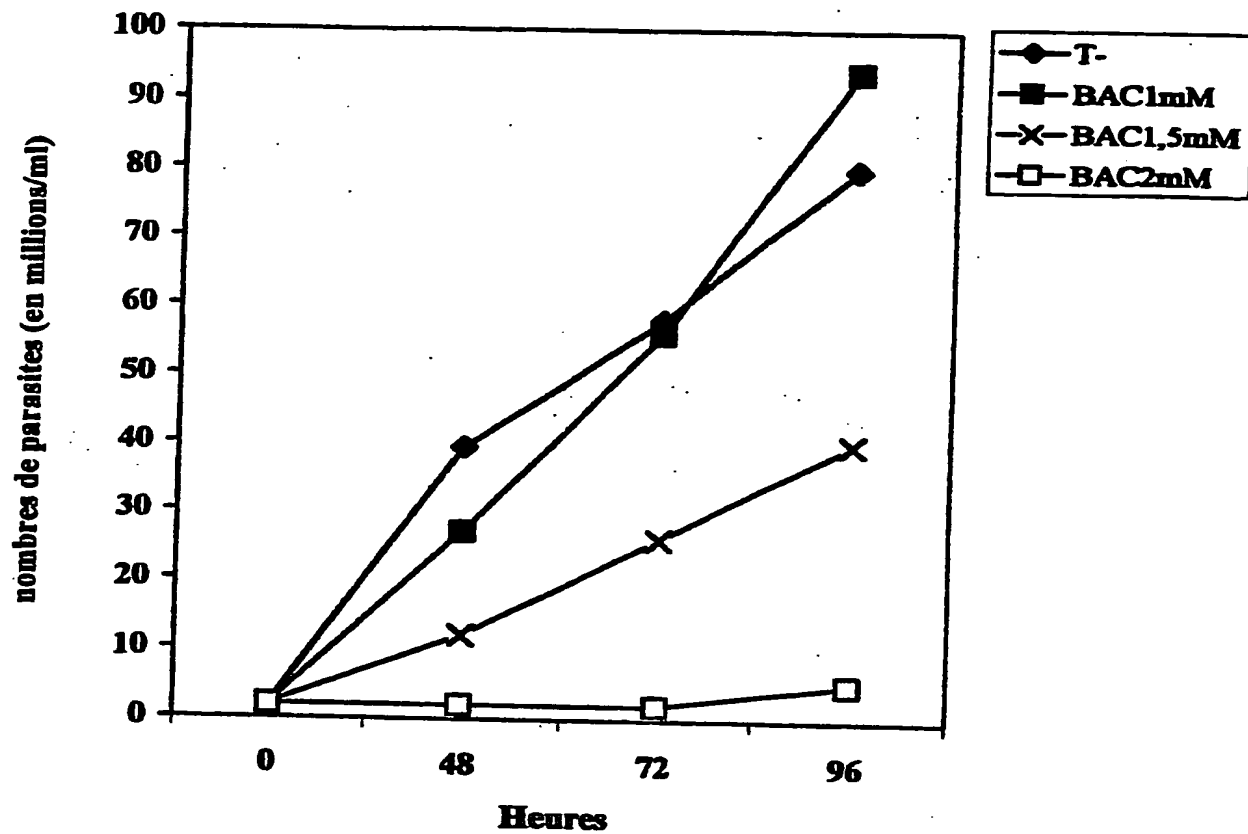


FIGURE 9

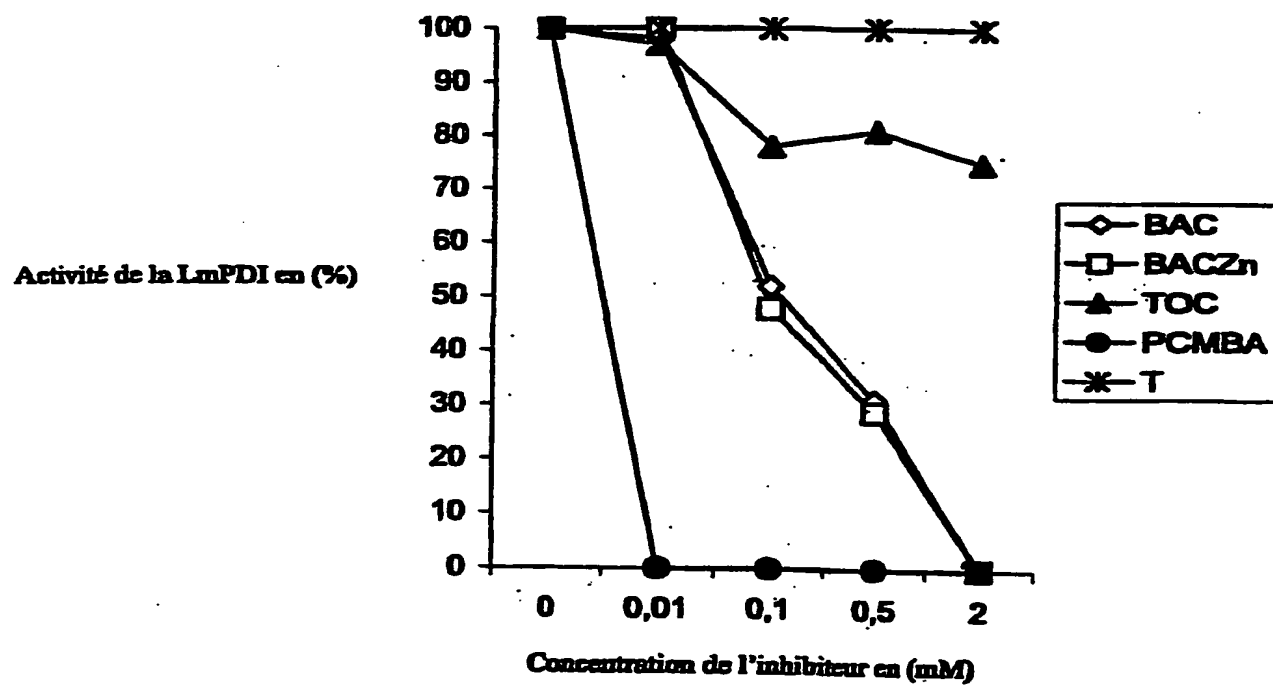


FIGURE 10

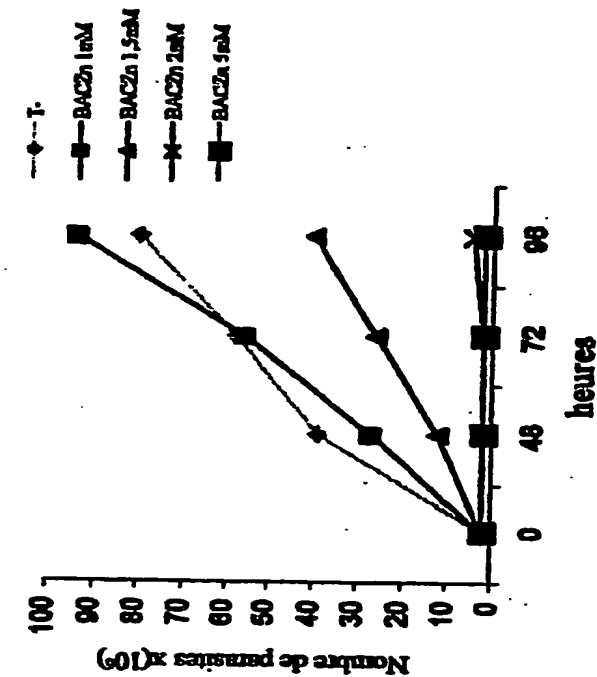


Figure 11 B

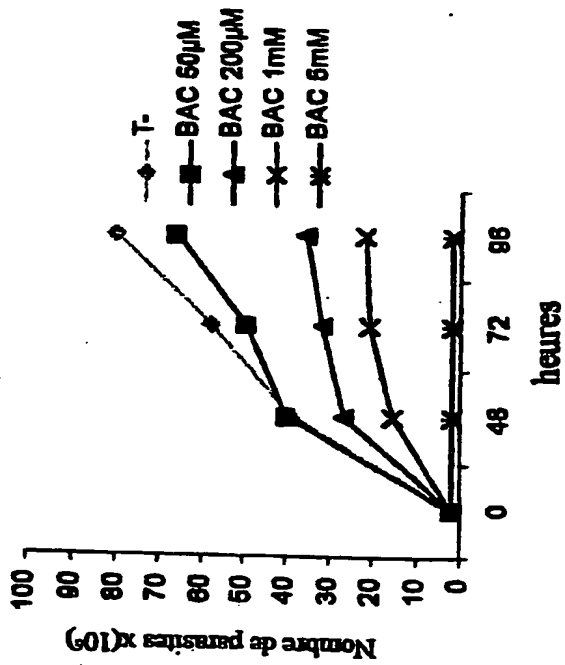


Figure 11 A

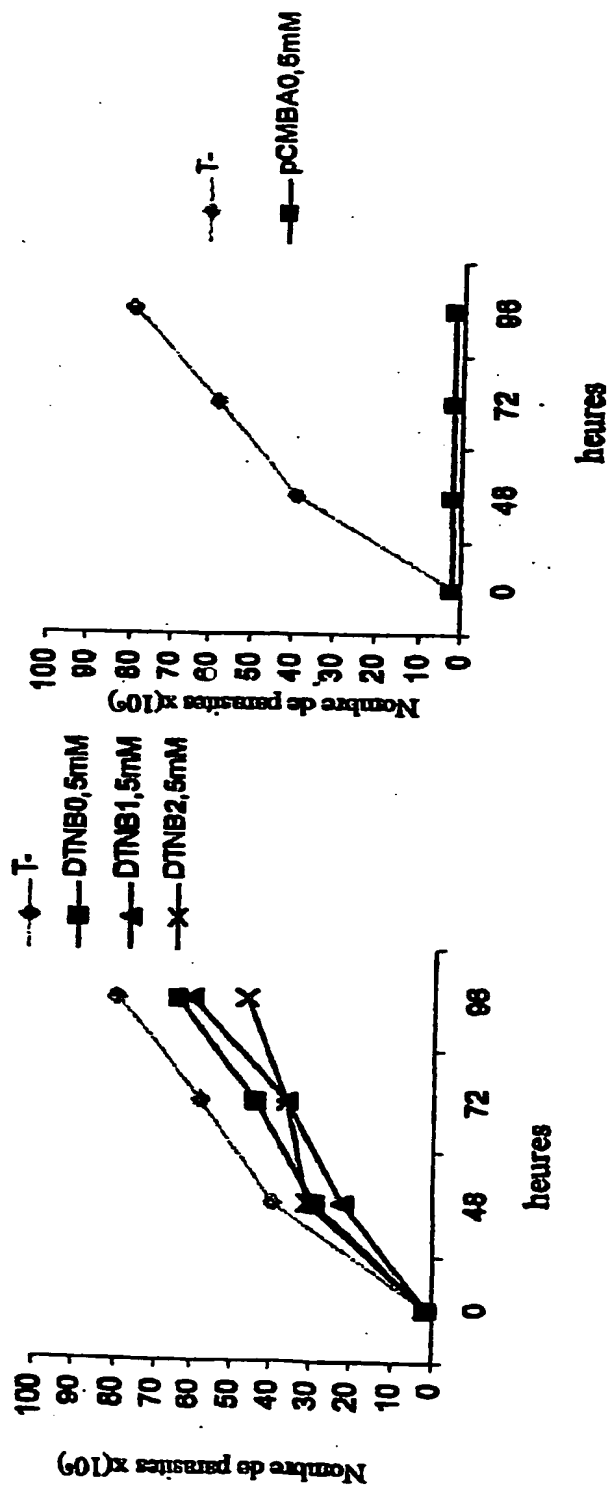


Figure 11 C

Figure 11 D

14/15

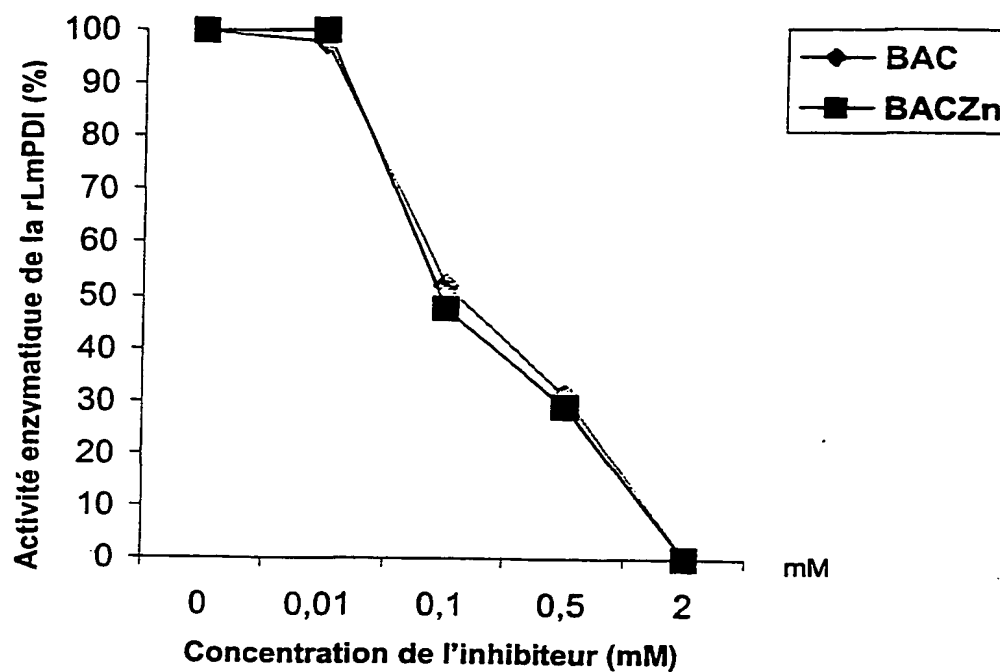


Figure 12

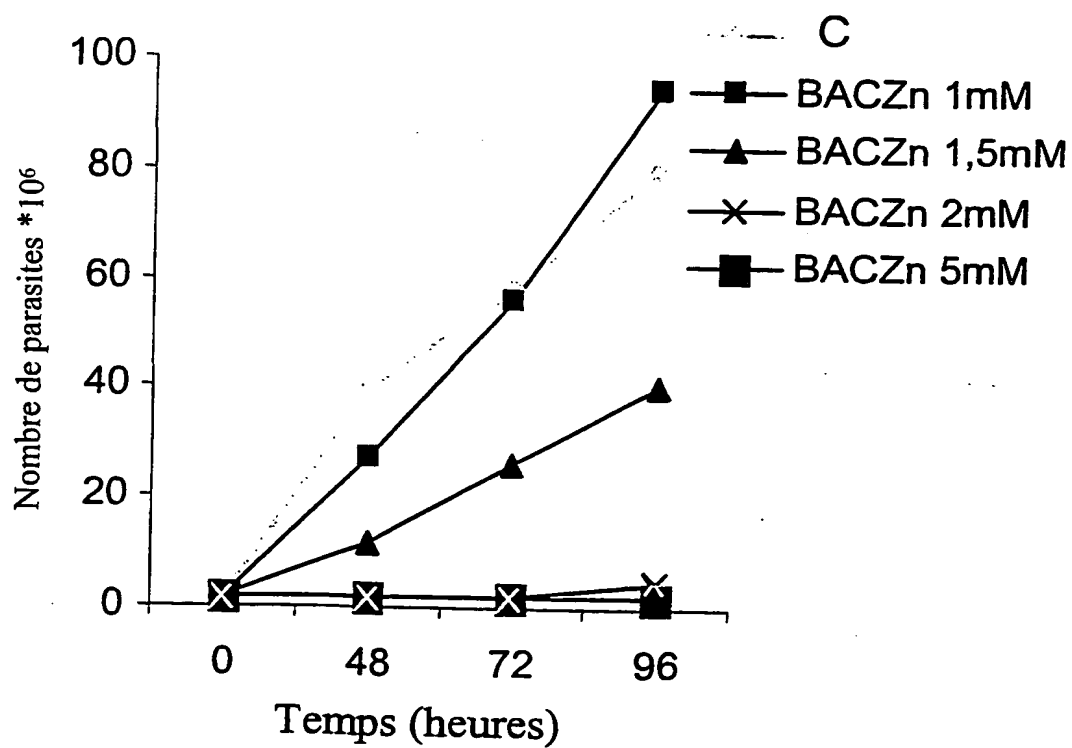


Figure 13

15/15

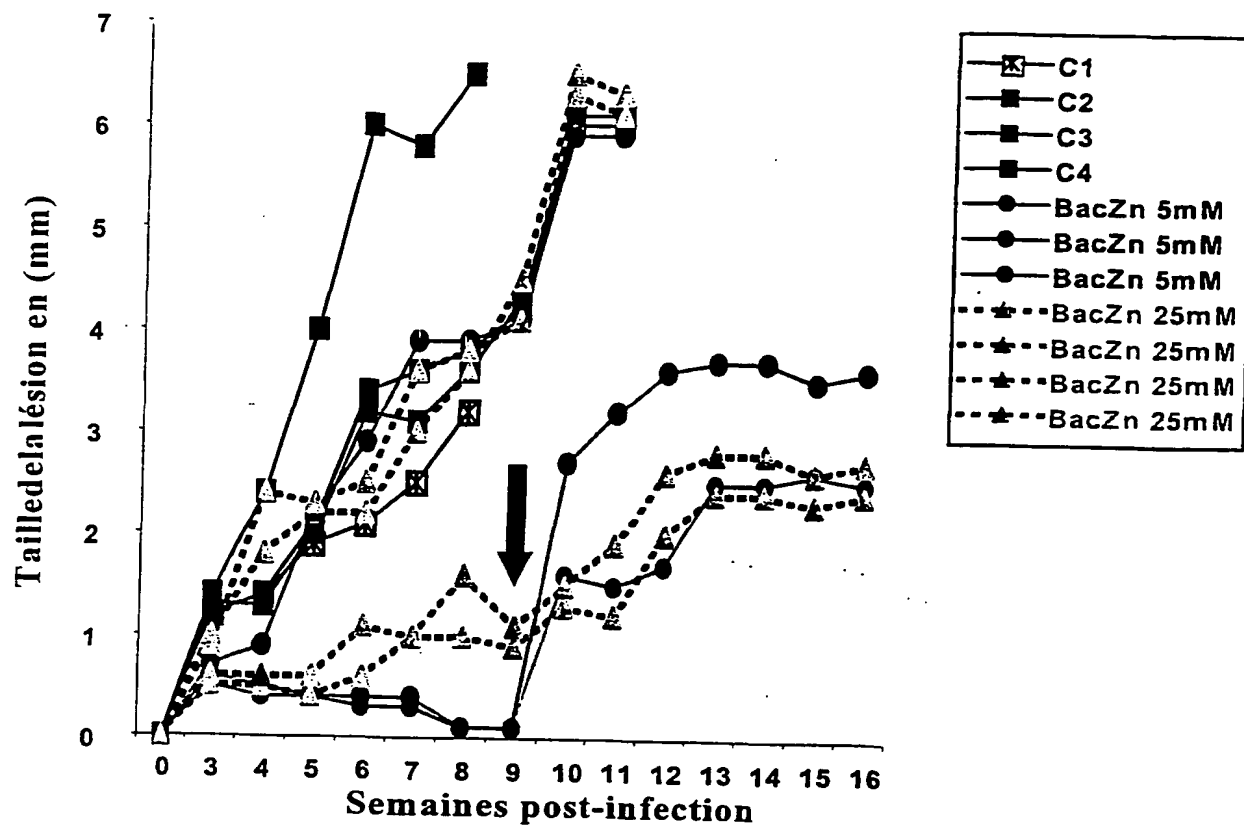


Figure 14